

REMARKS

Status of the Application

Claims 1-11 are all the claims pending in the present application. All claims remain rejected on prior art grounds.

Claim Rejections - 35 USC § 103

Claims 1, 2, 4 and 6-9 remain rejected under 35 USC §103(a) as being unpatentable over Hunzinger et al. (US PGPUB 2002/0172192 A1, hereinafter “Hunzinger”) in view of Leppisaari et al. (WO 01/20924 A1, hereinafter “Leppisaari”). Applicant traverses the rejection as follows.

Independent claim 1 recites:

A method of optimizing the performance of a mobile radio system in which different transfer modes correspond to different bit rates corresponding to different modulation schemes and the protocol architecture uses a radio link control layer that can operate in an acknowledged mode or in a non-acknowledged mode, in which method, in a transfer mode corresponding to the highest bit rates, acknowledgment information is sent in the non-acknowledged mode from a radio link control receiver to a radio link control sender and can be taken into account by the radio link control sender.

In the current Office Action, the Examiner essentially maintains his position regarding the combination of Hunzinger and Leppisaari, as asserted previously in the Office Action dated May 3, 2007. The Examiner indicates that the arguments submitted in the Response filed November 2, 2007, have been fully considered but they are not persuasive.

In particular, with regard to the argument that neither Hunzinger nor Leppisaari teaches or suggests that in a transfer mode corresponding to the highest bit rates, acknowledgment information is sent in the non-acknowledged mode from a radio link control receiver to a radio link control sender, the Examiner states:

[a]s the applicant has pointed out, the wireless terminal sends a channel request to the network, and in response, the network sends a specific assignment message. Therefore, using the broadest reasonable interpretation, the next action performed by the wireless terminal would be a response/acknowledgment to the specific assignment message. The wireless terminal can then propose to the network the unacknowledged RLC mode (page 11 lines 112). Using the broadest reasonable interpretation, the proposal is read as the acknowledgement information. Therefore, Hunzinger in view of Leppisaari disclose the limitation, “in a transfer mode corresponding to the highest bit rates, acknowledgment information is sent in the non-acknowledged mode from a radio link control receiver to a radio link control sender.”

Thus, the Examiner is asserting that when the wireless terminal sends a channel request to the network, the situation would correspond to the claimed “transfer mode corresponding to the highest bit rates … in the non-acknowledged mode.” The Examiner further asserts that when the wireless terminal responds by proposing an unacknowledged radio link control (RLC) mode, the proposal itself corresponds to the claimed “acknowledgement information.”

However, based on Applicant’s present understanding, in Leppisaari, the wireless terminal sends the channel request on a packet random access channel (PRACH).¹ The network then responds with an assignment message,² wherein the network assigns radio resources to the wireless terminal.³ The network then sets the RLC mode as either the unacknowledged mode or the acknowledged mode.⁴ In other words, the RLC mode is not set until after the channel request from the wireless terminal. Therefore, Applicant submits that the initial channel request does not

¹ See Leppisaari, page 8, lines 35 and 36.

² See Leppisaari, FIG. 3a.

³ See Leppisaari, page 9, lines 22-24.

⁴ See Leppisaari, page 9, lines 25 and 26.

correspond to a transfer mode corresponding to the highest bit rates in the “non-acknowledged mode,” as the Examiner suggests.

Moreover, Applicant submits that Leppisaari does not disclose or suggest anything about a method, in which a transfer mode corresponding to the highest bit rates, acknowledgment information is sent in the non-acknowledged mode from a radio link control receiver to a radio link control sender and can be taken into account by the radio link control sender. On the contrary, Leppisaari simply describes using the RLC_MODE frame to specify whether the wireless terminal proposes using an acknowledged RLC mode or an unacknowledged RLC mode.⁵ Thus, Applicant submits that Leppisaari fails to teach or suggest the above-noted features of the claimed invention.

Furthermore, as noted previously, the Examiner admits that Hunzinger fails to teach or suggest the above-noted claimed features. Consequently, Applicant submits that neither reference, either alone or in combination, teaches or suggests “in a transfer mode corresponding to the highest bit rates, acknowledgment information is sent in the non-acknowledged mode from a radio link control receiver to a radio link control sender and can be taken into account by the radio link control sender,” as claimed.

Yet even further, even given the "broadest reasonable interpretation" of the term "ACK (acknowledgement information)", on which the "Examiner's response to arguments" seems to be based, Applicant respectfully submits that such interpretation is not acceptable, i.e. the information described in Leppisaari cannot correspond the "ACK information" stated in the claims, at least based on the following additional reason. Information sent in response to the reception of a resource allocation request as described in Leppisaari cannot correspond to ACK

⁵ See e.g., Leppisaari, page 5, lines 27-33.

information exchanged between a RLC (Radio Link Control) transmitter and a RLC receiver as described in the claims. Information sent in response to the reception of a resource allocation request (as described in Leppisaari) is sent according to MAC protocol, whereas ACK information exchanged between a RLC (Radio Link Control) transmitter and a RLC receiver (as stated in the claims) are sent according to the RLC protocol, which is very different from the MAC protocol (see, for example, a disclosure of the distinction between these two protocols at page 3 line 36 to page 4 line 5 of Leppisaari). In particular MAC does not, contrary to RLC protocol, include any ACK mechanism as described in the claims.

Applicant submits that independent claim 1 is patentable over the prior art of record, at least for the reasons stated above. Similarly, Applicant submits that independent claims 10 and 11 are patentable for analogous reasons. Further, Applicant submits that dependent claims 2, 4 and 6-9 are patentable, at least by virtue of their respective dependency on independent claim 1.

Claims 3 is rejected under 35 USC 103(a) as being unpatentable over Hunzinger in view of Leppisaari, and further in view of Puharinen (8309700 Advanced Topics in Telecommunications). Claim 5 is rejected under 35 USC 103(a) as being unpatentable over Hunzinger in view of Leppisaari and further in view of Balachandran et al. (US Patent 6,567,375 B2).

Applicant submits that none of the cited references, or any combination thereof, cures the deficiencies of the combination of Hunzinger in view of Leppisaari, as discussed above. Therefore, Applicant submits that dependent claims 3 and 5 are patentable over the prior art of record, at least by virtue of their respective dependency on independent claim 1.

Claim Rejections - 35 USC § 102

Claims 10 and 11 are rejected under 35 USC 102(b) as being anticipated by Leppisaari.

Applicant submits that dependent claims 10 and 11 are patentable over the Leppisaari, at least by virtue of their respective dependency on independent claim 1.

Minor Claim Amendments

Applicant amends claims 10 and 11 to correct a typographical error in each claim.

Applicant respectfully submits that these minor amendments should be entered as they should not require further search and/or consideration.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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